

THREE NEW SPECIES OF THE
GENUS *PELEXIA* (ORCHIDACEAE, SPIRANTHINAE)
FROM COLOMBIA

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ABSTRACT

The genus *Pelexia* Poit. ex Lindl. occurs in the tropics and subtropics of both Americas: from Argentina in the south to Mexico and Florida in the north. According to Garay (1982) it contains 67 species. *Pelexia* is distinguishable from closely related *Sarcoglottis* Presl by an "externally observable line of adnation" between ovary and lateral sepals.

While studying herbarium materials from COL, P and S, I found some specimens which did not fit the diagnoses of any previously known species. They are described here for the first time.

Key Words: *Pelexia*, new species, Colombia

PELEXIA CUNDINAMARCAE, *sp. nov.* (Figure 1)

Involucrum sub angulo recto ad ovarium incurvatum, tubuloso-convolutum. Calcar saccelliforme, apice angusto, discreto, ad ovario soluto. Auriculae labelli crassae, carnosae, ad unguem adnatae, epichilio longitudinis aequantes. Hypochilium obovatum, epichilium triangulare, minutum, valde incrassatum.

Roots clustered, fleshy. Stem 210-450 mm tall, 5-6 mm in diameter at base, 2 mm in diameter below inflorescence, erect, rather stout, in the upper part glandular. Cauline bracts 4-5, herbaceous, thin, acute, closely adnate to the stem, longer than internodes, the uppermost reaches the base of the inflorescence, glabrous except the uppermost, which is sparsely glandular in the basal portion. Leaves 3-5, basal; petiole long and narrow, up to 120 mm long; blade 55-95 mm long, 13-30 mm wide, lanceolate, acute, in pressed plants grayish-pale violet on the upper surface, dull red on the lower. Inflorescence 40-115 mm long, 8-20-flowered, lax, subsecund. Flowers medium size, perianth tube forms a right angle with the ovary, spur saccate with narrow projection on apex. Floral bracts 15-22 mm long, lanceolate, acute, longer than ovary, herbaceous, thin, delicate, densely glandular outside. Pedicel 1.5-5 mm long, twisted. Ovary 12-15 mm long, densely glandular. Dorsal sepal 11.5 mm long, 4 mm wide, ovate-lanceolate, acuminate, 3-nerved, glandular outside. Free portion of

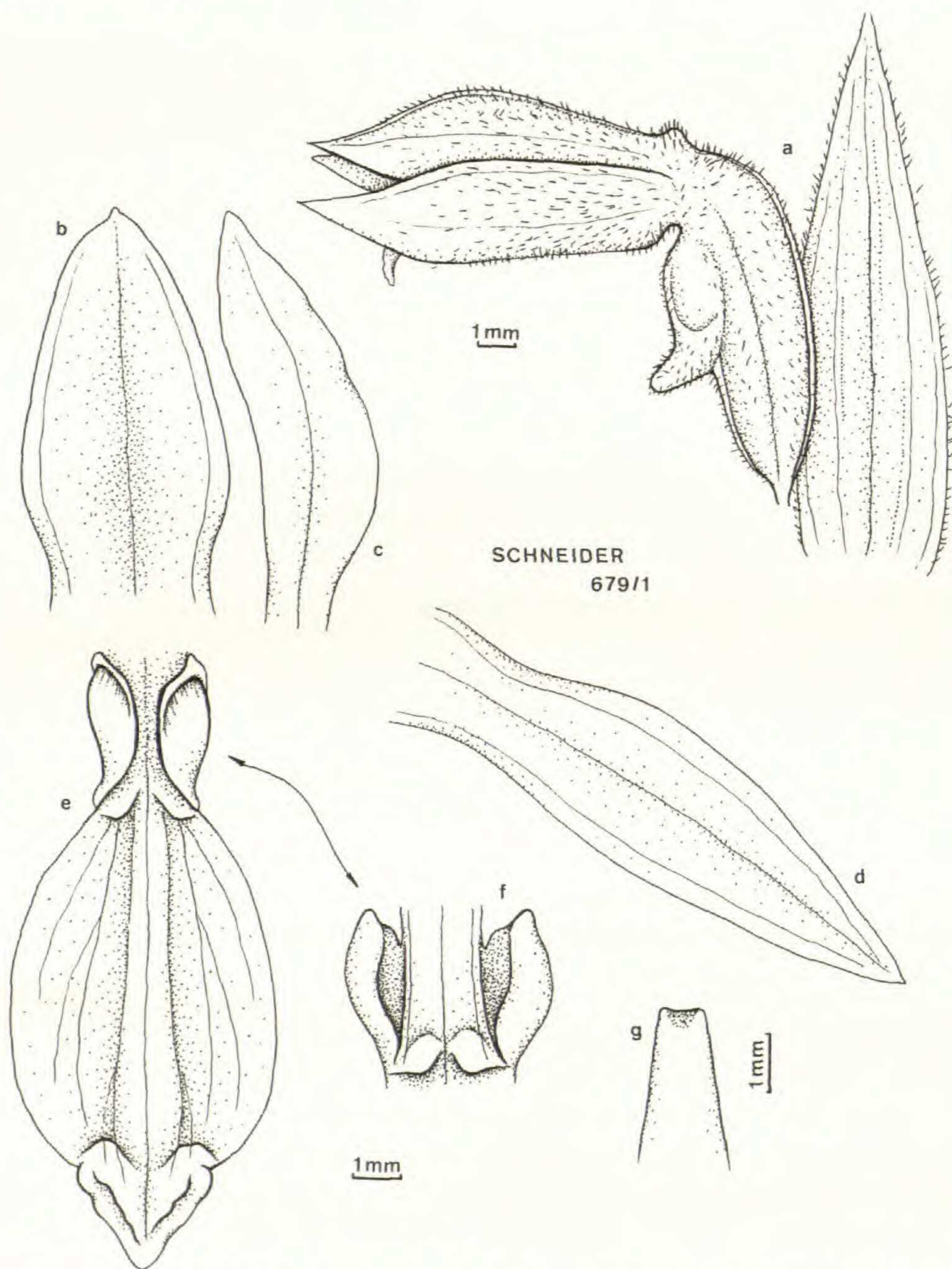


Figure 1. *Pelexia cundinamarcae* Szlach.: a—flower and floral bract; b—dorsal sepal; c—petal; d—free portion of lateral sepal; e—lip; f—basal lip auricles, spread; g—rostellum remnant.

lateral sepals 12.5 mm long, 3 mm wide, lanceolate, acute, slightly asymmetric, 3-nerved, glandular outside. Petals 11.5 mm long, 2.6 mm wide, linear-falcate, acute, single-nerved, slightly adnate to the dorsal sepal, ciliate on outer margins. Lip boat-formed, straight, shortly clawed; claw very thick in the center. Hypochile

12.5–13 mm long, 7.2 mm wide, obovate in general outline, thickened and papillate along midnerve and near the base, thin on margins: basal lip auricles 4–5 mm long, 4.7–5.5 mm wide when spread, connate with the claw with free apices about 1.3–1.5 mm long, fleshy, very thick. Epichile 3.5 mm long, 4–4.2 mm wide, obovate to cordate, obtuse to subacute, papillate, thicker than hypochile, fleshy. Gynostemium 9.5 mm long, erect; column foot adnate to the ovary on distance 6.5 mm long, with free apical part 2 mm long; rostellum 3 mm long, broad at base; viscidium 0.9 mm long; rostellum remnant 2.3 mm long; anther 3.6 mm long.

TYPE: COLOMBIA, Deptos. Cundinamarca-Boyaca—entre Villa Pinzon y Ventaquemada, 2800–2900 m. *Schneider 679/1*, 30 March 1953 (HOLOTYPE: COL 68326).

PARATYPE: COLOMBIA, Dept. Boyaca—bei Ventaquemada, 288–2900 m. *Schneider 679*, 30 March 1953 (s).

ETYMOLOGY: eipthet of this new entity based on the name of the Department in Colombia where the species was found.

Pelexia cundinamarcae is characterized by the position of the perianth versus ovary, shape of the spur and lip form, i.e., perianth segments set perpendicularly on the ovary apex; nectar spur is saccate with narrow, finger-like projection on apex; basal lip auricles are fleshy, thick, connate with thick claw and equal in length with the small, triangular and very fleshy epichile. Hypochile is obovate to cordate.

Pelexia cundinamarcae is a terrestrial plant, found in dense, moist forest. Sepals and petals are green, lip is greenish.

PELEXIA ASINUS, *sp. nov.*

(Figure 2)

Pelexiae novofriburgensi affinis, sed floribus strictis, apice plus minusve patentibus, pedicello longo, erecto, calcari coniformi, apice soluto, auriculis labellis magnis, carnosis, epichilio transverse ovali duplo longioribus et hypochilio ovato-rhomboidali recedit.

Roots fleshy, clustered. Stem 520 mm tall, 6 mm in diameter at base, about 1 mm in diameter below inflorescence, erect, slightly pendulous in upper part, delicate, above the leaves sparsely glandular, densely glandular along inflorescence axis. Cauline bract single, narrow, acute, short, herbaceous, sparsely glandular at base.

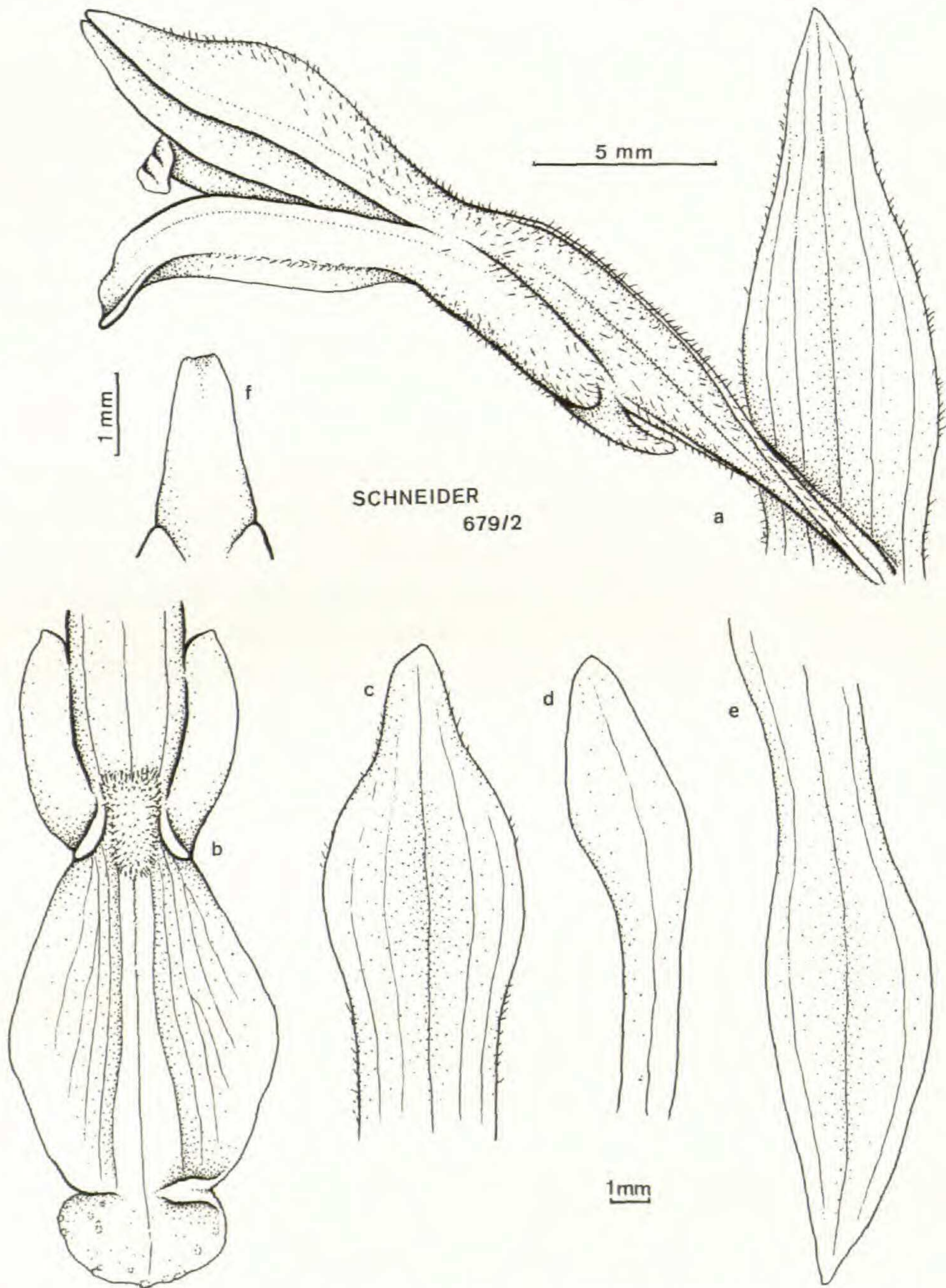


Figure 2. *Pelexia asinus* Szlach.: a—flower with floral bract; b—lip; c—dorsal sepal; d—petal; e—free portion of lateral sepal; f—rostellum remnant.

Leaves 5, forming a basal rosette and 2 on the stem; petiole 120 mm long, narrow, delicate; blade 85–100 mm long, 25–28 mm wide, lanceolate, acute, asymmetric, thin, delicate, reddish tinge. Inflorescence 120 mm long, 10-flowered, lax, subsecund. Flowers erect, medium-sized, with narrow slightly falcate spur. Floral bracts

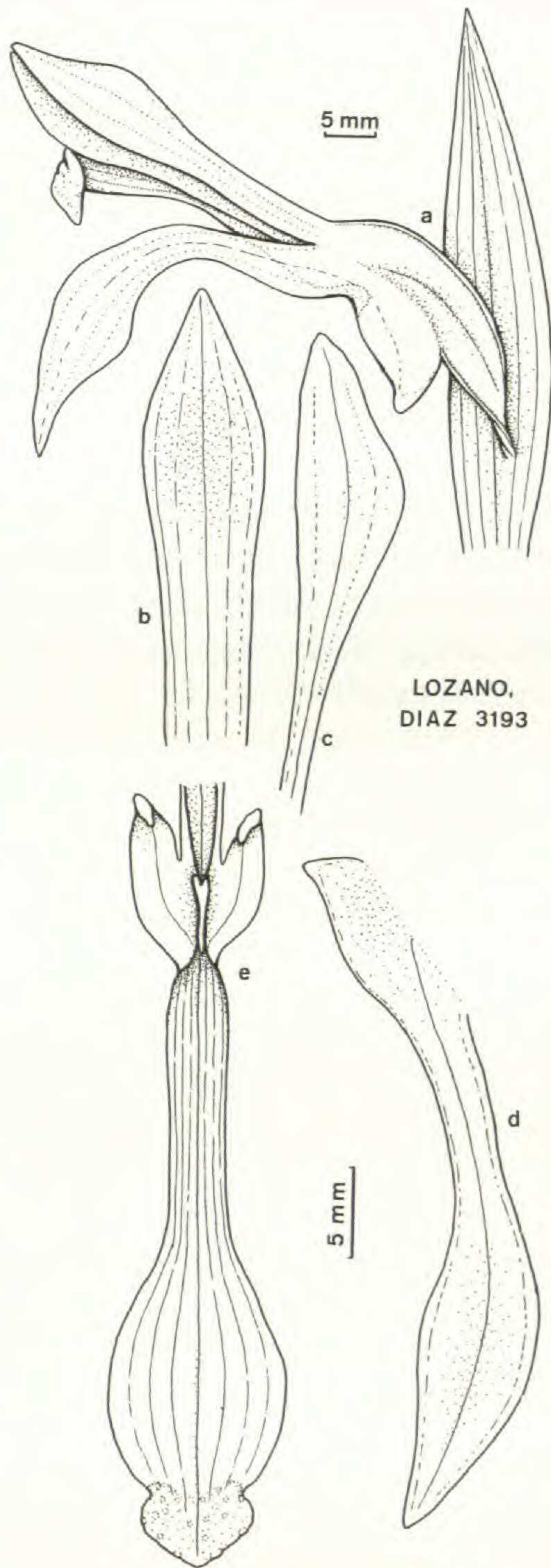


Figure 3. *Pelexia sinuosa* Szlach.: a—flower and floral bract; b—dorsal sepal; c—petal; d—lateral sepal; e—lip.

24 mm long, ovate-lanceolate, subacute, herbaceous, thin, glandular outside. Pedicel about 5–7 mm long, twisted. Ovary 16 mm long, narrow, densely glandular. Dorsal sepal 16.5 mm long, 5 mm wide, oblong, widest and concave in the middle, obtuse, rather fleshy, densely glandular outside in the basal half. Free part of lateral sepals 20 mm long, 4 mm wide, more or less erect, lanceolate, acute, fleshy, densely glandular outside in the basal half. Petals 16.5 mm long, 3.5 mm wide, falcate-oblongate, obtuse, single-nerved, glandular up to $\frac{3}{4}$ on outer margins. Lip straight with the apex bent forward, clawed; basal lip auricles 6 mm long, 1.6 mm wide, almost completely connate with the claw, free portion about 1 mm long, very thick, fleshy; hypochile 10 mm long, 8 mm wide, obovate, thickened along midnerve, margins thin, agglutinate to the clinandrium; epichile 3 mm long, 4.8 mm wide, elliptic, obtuse, fleshy, papillate. Gynostemium 12 mm long, erect; column foot adnate to the ovary along 7 mm, with free 2.5 mm apical part; rostellum remnant 2 mm long, broad at base; anther 4 mm long.

TYPE: COLOMBIA, Dept. Cundinamarca—Rio Sabaneta, mas abajo de El Dintel, 2200 m. *Schneider* 679/2, 13 June 1953 (HOLOTYPE: COL). ETYMOLOGY: *asinus* (Lat.)—donkey; an allusion to the general outline of the lip, which suggests the head of this animal.

At first glance *Pelexia asinus* seems to be similar to *P. novofriburgensis* (Reichenb. f.) Garay, but it is easy to distinguish by the erect flowers, set on the long and erect pedicel, narrow conical-falcate spur apex, very large and fleshy basal lip auricles, which are about twice the size of the elliptic epichile. Hypochile is obovate.

PELEXIA SINUOSA, *sp. nov.*

(Figure 3)

Habitu *Pelexiae funckianae* similis, sed vaginis caulinis multis, floribus majoribus et inflorescentia densa differt. Bracteae longae, intus glandulosae. Labellum basi angulato-flexuosum, plico crasso, carnosio inter auriculis praeditum.

Roots fleshy, clustered. Stem 370 mm tall, 5–7 mm in diameter at base, 2–3 mm in diameter below inflorescence, erect, rather stout, glandular in upper half, completely covered by cauline bracts. Cauline bracts 6–12, longer than internodes, reach the inflores-

cence, lanceolate, spacious, acute, herbaceous, uppermost glandular at base. Leaves 7, forming a basal rosette; petiole 55–90 mm long, narrow; blade 45–90 mm long, 18–40 mm wide, broad-lanceolate, acute, seems to be fleshy. Inflorescence 130–180 mm long, 15–25-flowered, dense. Flowers very large, suberect, with saccate spur. Floral bracts 34–43 mm long, lanceolate to oblong-lanceolate, acute, thin, herbaceous, glandular outside. Pedicel 5 mm long, twisted. Ovary 18–23 mm long, narrow, almost erect, glandular. Dorsal sepal 28–30 mm long, 5.5–6.5 mm wide, oblong-lanceolate, subacute, thin, delicate, concave at apex, densely glandular outside. Lateral sepals 34–35 mm long, 4–4.5 mm wide, falcate-lanceolate, acute, thin, glandular outside. Petals 28–30 mm long, 4.8–5.5 mm wide, linear in lower part, falcate-lanceolate in upper, acute to obtuse, thin, glandular on outer margins. Lip set on long and narrow claw, basal lip auricles partially free from claw (2.3–2.8 mm long), 4.7–5 mm wide when spread, thickened at apices, ciliate outside; between auricles fleshy, papillate ridge, lip strongly S-incurved above the ridge; hypochile 28–30 mm long, 8.5–9.8 mm wide, thin, delicate, more or less linear in basal part and ovate in apical, sometimes with two small knobs at apex, fused with the column; epichile 4–5 mm long, 6–6.5 mm wide, cordate, obtuse, papillate, thicker than hypochile, bent forward in natural position. Gynostemium 21–25 mm long, slender, erect; column foot adnates to the ovary along 8.5–10 mm, with free apex 4 mm long; rostellum 3–4 mm long, membranous, delicate; viscidium 1–1.5 mm long; rostellum remnant 3 mm long; anther 6 mm long; pollinarium 7.2–8 mm long.

TYPE: COLOMBIA, Dept. del Choco—kilometro 55 de la carretera Ansermanuevo-San Jose del Palmar, 1700–1950 m. Terrestre. Flores verdes, labelo verde amarillento. *Lozano & Diaz 3193*, 19 March 1980 (HOLOTYPE: COL 200472).

PARATYPE: COLOMBIA, Dept. de Bolivar—requon du rio San Jorge. *Claes 32*, sine dat. (P).

ETYMOLOGY: *sinuosa* (Lat.)—sinuous; in reference to the S-curvature of the lip base.

This new species is superficially similar to *P. funckiana* (A. Rich. & Gal.) Schlecht., but the flowers are almost twice as large as in the last species. They are arranged in multiflowered and dense inflorescence. Cauline bracts are numerous and longer than internodes covering the whole stem completely. Very long floral

bracts are glandular outside. But the most characteristic feature of *P. sinuosa* is S-formed lip bending in the anterior portion with fleshy, thick ridge between basal lip auricles.

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